

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A speech processing method comprising:
~~receiving speech signals;~~
processing ~~the~~ received speech signals to generate a plurality of phoneme clusters;
grouping the plurality of phoneme clusters into a first cluster node and a second cluster node, wherein the first cluster node comprises at least one phoneme cluster from the plurality of phoneme clusters; and
determining subsequent to grouping the plurality of phoneme clusters, when the at least one phoneme cluster in the first cluster node is to be moved into the second cluster node based on a likelihood increase of the phoneme cluster of ~~in~~ the first cluster node ~~from being in the first cluster node to being in~~ belonging to the second cluster node instead of belonging to the first cluster node.

2. (Currently amended) The speech processing method of claim 1, further comprising:

moving the at least one phoneme cluster in the first cluster node into the second cluster node ~~when the at least one phoneme cluster in the first cluster node is determined to be moved into the second cluster node~~ responsive to the determination subsequent to grouping the plurality of phoneme clusters.

3. (Currently amended) The speech processing method of claim 2, wherein moving the at least one phoneme cluster in the first cluster node into the second cluster node ~~includes~~ comprises:

moving the at least one phoneme cluster in the first cluster node into the second cluster node when the ~~most~~-likelihood increase is more than a threshold value.

4. (Previously presented) The speech processing method of claim 1, wherein the plurality of phoneme clusters are triphone clusters based on a hidden markov model (HMM).

5. (Currently amended) The method of claim 4, wherein the grouping of the plurality of phoneme clusters ~~includes~~ comprises:

grouping the triphone clusters according to answers to best phonetic context based questions related to the triphone clusters.

6. (Currently amended) A speech processing system comprising:

an input to receive speech signals; and

a processing unit to:

process received speech signals;

generate a plurality of phoneme clusters from the processed received speech signals;

group the plurality of phoneme clusters into a first cluster node and a second cluster node, wherein the first cluster node comprises at least one phoneme cluster from the plurality of phoneme clusters; and

determine subsequent to grouping the plurality of phoneme clusters, when the at least one phoneme cluster in the first cluster node is to be moved into the second cluster node based on a likelihood increase of the phoneme cluster ~~of~~ in the first cluster node ~~from being in the first cluster node to being in~~ belonging to the second cluster node instead of belonging to the first cluster node.

7. (Currently amended) The speech processing system of claim 6, wherein the processing unit is to move the at least one phoneme cluster in the first cluster node into the second cluster node ~~when the at least one phoneme cluster in the first cluster node is determined to be moved into the second cluster node~~ responsive to the determination subsequent to grouping the plurality of phoneme clusters.

8. (Currently amended) The speech processing system of claim 7, wherein the processing unit is to move the at least one phoneme cluster in the first cluster node into the second cluster node when the ~~most~~ likelihood increase is more than a threshold value.

9. (Previously presented) The speech processing system of claim 6, wherein the plurality of phoneme clusters are triphone clusters based on a hidden markov model (HMM).

10. (Original) The speech processing system of claim 9, wherein the processing unit is to group the triphone clusters according to answers to best phonetic context based questions related to the triphone clusters.

11. (Currently amended) A machine-readable storage medium that provides instructions, which when executed by a processor, cause the processor to perform the operations comprising:

~~receiving speech signals;~~

processing the received speech signals to generate a plurality of phoneme clusters;

grouping the plurality of phoneme clusters into a first cluster node and a second cluster node, wherein the first cluster node comprises at least one phoneme cluster from the plurality of phoneme clusters; and

determining subsequent to grouping the plurality of phoneme clusters, when the at least one phoneme cluster in the first cluster node is to be moved into the second cluster node based on a likelihood increase of the phoneme cluster ~~of in~~ the first cluster node ~~from being in the first cluster node to being in~~ belonging to the second cluster node instead of belonging to the first cluster node.

12. (Currently amended) The machine-readable storage medium of claim 11, further providing instructions, which when executed by a processor, cause the processor to perform the operations comprising:

moving the at least one phoneme cluster in the first cluster node into the second cluster node ~~when the at least one phoneme cluster in the first cluster node is determined~~

~~to be moved into the second cluster node~~ responsive to the determination subsequent to grouping the plurality of phoneme clusters.

13. (Currently amended) The machine-readable storage medium of claim 12, further providing instructions, which when executed by a processor, cause the processor to perform the operations comprising:

moving the at least one phoneme cluster in the first cluster node into the second cluster node when the ~~most~~-likelihood increase is more than a threshold value.

14. (Currently amended) The machine-readable storage medium of claim 11, wherein the plurality of phoneme clusters that are triphone clusters based on a hidden markov model (HMM).

15. (Currently amended) The machine-readable storage medium of claim 14, further providing instructions, which when executed by a processor, cause the processor to perform the operations comprising:

grouping the triphone clusters according to answers to best phonetic context based questions related to the triphone clusters.